Filing Date: October 22, 2001

Title: SYSTEM AND METHOD FOR ARRHYTHMIA DISCRIMINATION

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REMARKS

In response to the Office Action mailed on November 14, 2003, claims 50, 54 and 59 are amended; as a result, claims 46-63 are now pending in this application.

Double Patenting Rejection

Claims 46-62 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-51 of U.S. Patent No. 6,308,095. A Terminal Disclaimer in compliance with 37 CFR 1.321(b)(iv) is enclosed herewith to obviate these rejections.

§102 Rejection of the Claims

Claims 46-51, 53 and 59-63 were rejected under 35 U.S.C. § 102(b) for anticipation by Adams et al. (U.S. Patent No. 5,366,487, "Adams"). Applicant respectfully traverses.

*Regarding claims 46-49:

Applicant cannot find in Adams, among other things, any disclosure of comparing the time difference to a template time difference between the first and second fiducial features obtained from said patient during normal sinus rhythm, as recited or incorporated in claims 46-49. Instead, the Adams comparison is apparently based on information from prior patients. See Adams, col. 4, lines 21-36 and Fig. 8. During prosecution of the parent application, Appl. No. 09/248,800 -- U.S. Pat. No. 6308095, the Examiner agreed that this distinction was sufficient to distinguish Adams. See pages 2 and 3 of the final office action for patent appl. no. 09/248,800 dated 12/29/2000.

Applicant respectfully requests reconsideration and allowance of claims 46-49. Regarding claims 50, 51 and 53:

Applicant cannot find in Adams, among other things, any disclosure of comparing the first and second amplitudes to respective first and second thresholds obtained from said patient during normal sinus rhythm, as presently recited or incorporated in claims 50, 51 and 53. Also, Adams removes the amplitude information and retains only the timing information. *See* Adams col. 8 lines 17-25. Thus, Adams does not disclose -- and actually teaches away from -- comparing amplitudes as recited or incorporated in these claims.

Applicant respectfully requests reconsideration and allowance of claims 50, 51 and 53. *Regarding claims 59-63:*

Applicant cannot find in Adams, among other things, any disclosure of a signal feature comparison circuit adapted to compare at least one characteristic of at least one of the first and second fiducial features to a template quantity obtained from a patient that is representative of a normal sinus rhythm complex, as recited or incorporated in these claims. Therefore, for the reasons discussed above, Applicant respectfully requests reconsideration and allowance of claims 59-63.

§103 Rejection of the Claims

Claims 52 and 54-59 were rejected under 35 U.S.C. § 103(a) for obviousness over Adams et al. (U.S. Patent No. 5,366,487). Applicant respectfully traverses.

Regarding claim 52:

Applicant can find no disclosure, teaching, or suggestion in Adams of comparing the first and second amplitudes to respective first and second thresholds obtained from said patient during normal sinus rhythm, as presently incorporated in claim 52. Moreover, Adams removes the amplitude information and retains only the timing information. *See* Adams col. 8 lines 17-25. Thus, Adams actually teaches away from comparing amplitudes as recited in claim 52. Because no *prima facie* case of obviousness presently exits with respect to this claim, Applicant respectfully requests reconsideration and allowance of claim 52.

Regarding claims 54-58:

Applicant cannot find in Adams, among other things, any disclosure, teaching or suggestion of comparing the first slope to a first threshold slope and comparing the second slope to a second threshold slope, the first and second threshold slopes obtained from said patient during normal sinus rhythm, as recited or incorporated in these claims.

Also, Adams retains only the timing information from heart voltage signals for comparison. Other information is described as irrelevant. See Adams col. 8 lines 17-25. Thus, Adams actually teaches away from comparing slopes as recited or incorporated in these claims.

Because no *prima facie* case of obviousness presently exits with respect to this claim, Applicant respectfully requests reconsideration and allowance of claims 54-58.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

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Regarding claim 59:

Applicant cannot find in Adams, among other things, any disclosure, teaching, or suggestion of a signal feature comparison circuit adapted to compare at least one characteristic of at least one of the first and second fiducial features to a template quantity obtained from a patient that is representative of a normal sinus rhythm complex, as recited in claim 59. Because no *prima facie* case of obviousness presently exits with respect to this claim, Applicant respectfully requests reconsideration and allowance of claim 59.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

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Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at 612-373-6951 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743

Respectfully submitted,

WILLIAM HSU ET AL.

By their Representatives,

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Date <u>January 16, 2004</u>

Suneel Arora

Reg. No. 42,267

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Non-Fee Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this *Moday* of